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The Development Promise: Can the Doha Development Agenda Deliver for Least-Developed Countries?

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The benefits least-developed countries (LDCs) can draw from a multilateral trade reform as designed by the modalities made public in May 2008 are negligible, and some countries will even face adverse effects. World Trade Organization (WTO) negotiators should make a supplementary effort in favor of the poorest countries. The Duty-Free Quota-Free (DFQF) Initiative moves in the right direction, but it should be extended not only from a product point of view—with a 100, not 97, percent application—but also in terms of geographic coverage. This initiative has to be supported by both Organisation for Economic Co-operation and Development (OECD) and BrIC (Brazil, India, and China) countries. It is in the interests of Asian LDCs to prioritize full openness of OECD markets (a 100-percent DFQF regime) and full access to the U.S. market in particular, while African countries will draw more benefits from a geographic extension of this regime to BrIC countries.

When the Doha Round of trade negotiations was launched in 2001 in Doha, Qatar, it was proclaimed as the "Doha Development Agenda" (DDA). While it appeared as a promising political decision—in particular for middle-income countries (MICs) specialized in agriculture (Argentina, Brazil) or with strong interests in textiles and apparel (China, India)—the economic impacts of a potential Doha agreement remain uncertain, in particular for LDCs. LDCs not only have very special economic features as far as trade issues are concerned, but also exhibit diverse economic and trading capabilities. Although from the onset LDCs have been targeted as the main beneficiaries, it has never been clear how this round could address their economic and trade interests.

To this extent, several key questions remain. LDCs have been the main beneficiaries of important preferential market access regimes such as the Everything But Arms (EBA) initiative of the European Union; so, what would be the implications of potential preference erosion from multilateral liberalization? Might increased competition resulting from the multilateral tariff reduction in the textile and apparel sectors reduce LDC access opportunities in industrial markets and hence cause a deterioration of their terms of trade? Most of these countries are net importers of food products, the world prices of which are expected to rise due to trade reform. Are there alternatives that can mitigate such negative effects for LDCs, or even compensate them for their losses?

The release of the detailed modalities in May 2008 makes it possible to carry out an in-depth analysis of the expected economic impacts of a possible Doha agreement by allowing us to define a central scenario. In addition to the central scenario based on current modalities, we propose five alternative scenarios that focus on DFQF access for LDCs. The analysis is done through the MIRAGE general equilibrium model of the world economy, with main specifications as described in Box 1.[1]

[1] The MIRAGE (Modeling International Relationships in Applied General Equilibrium) model was developed at the Centre d'Etudes Prospectives et d'Informations Internationales (CEPII) in Paris. A full description of the model is available in Decreux and Valin (2007). Based on standard and robust assumptions, it should be noted that the model may underestimate the positive effects of trade reform, particularly when such reform drives new investments, technology improvements, or important trade or production diversification.

Box 1—Methodology

Tariff reform is implemented at the disaggregation level of the MAcMap-HS6v2.1 database with tariff data for 2004 (including 5,113 products, 170 importing countries, and 208 exporting countries). The analysis accounts for all major changes that occurred up to 2008, including major regional trade agreements (RTA), new WTO members, and so on. The tariff scenarios are then implemented in the MIRAGE model.

Macroeconomic data (such as world trade flows, production, consumption, intermediate use of commodities and services) come from the GTAP 7 pre-release 6 database. The modeling exercise assumes perfect competition. The excluded products list in the DFQF initiative is defined according to the methodology defined by Jean, Laborde, and Martin (2008).

The study focuses on LDCs and includes 14 LDC regions, 7 high-income countries (HICs), and 14 MICs. The sector decomposition is highly detailed in terms of agriculture (with 11 sectors), since most of the protection faced is in this sector. All other sectors are nonagricultural, including 12 industrial sectors where LDCs are highly specialized and 2 services sectors.

A baseline is implemented from 2008 to 2025, which depicts the world without multilateral reform and without new RTAs. It serves as a point of comparison with the Doha scenarios. The results are reported for the year 2025. Two special assumptions have been made: first, the analysis does not account for the current high world prices of energy and food products, and, second, only the market access component of the modalities is implemented. Indeed, it appears that for both the European Union (Josling, Jean, and Laborde 2008) and the United States (Blandford, Laborde, and Martin 2008), the current domestic support modalities will not require deviation from actual farm policies before 2013. Moreover, when the WTO members liberalize under the DDA, the market access remains unchanged for non-WTO members.

LEAST-DEVELOPED COUNTRIES TODAY

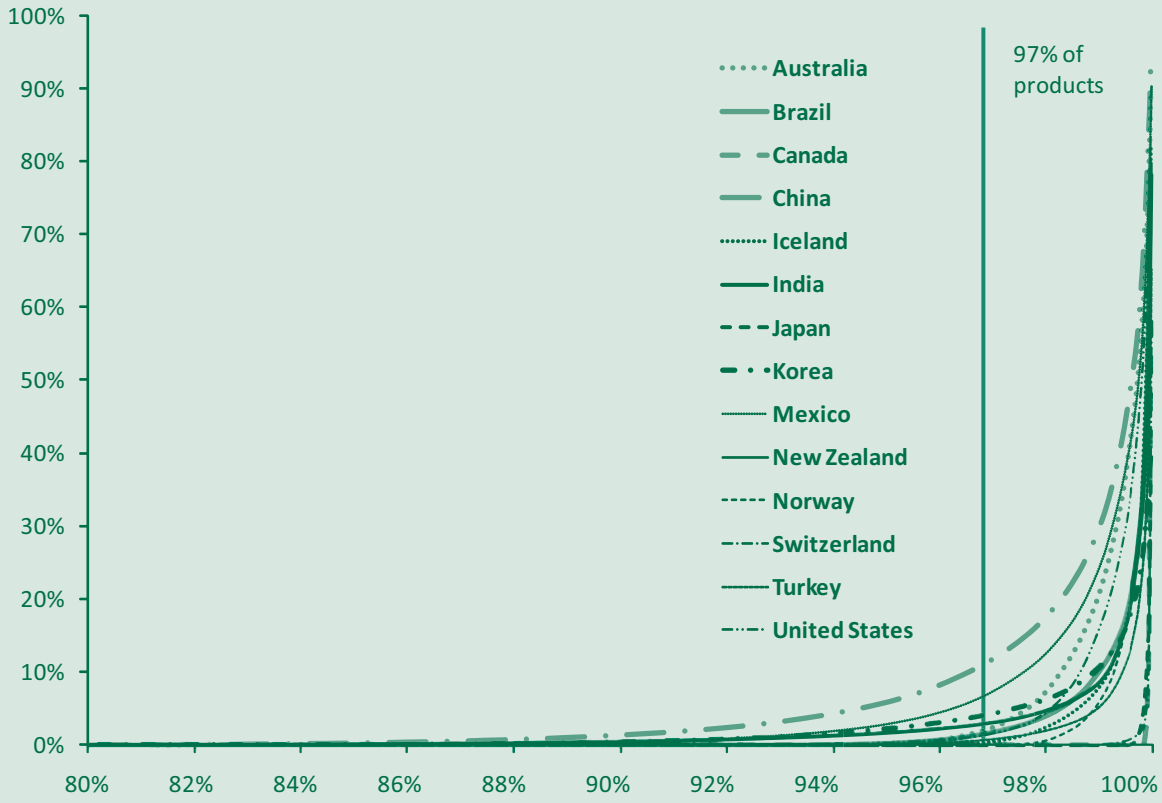
Currently, LDCs face a lower average duty on their exports than MICs (4 versus 5.1 percent), but the situation differs across individual countries. Over half the WTO LDCs faced a higher average duty on their exports compared with the world average in 2008. On the other hand, seven LDCs faced a low average. This discrepancy in terms of protection faced by various LDCs can be explained either by the product composition of exports (some LDCs face low protection on their exports as they specialize in products like oil, diamonds, and gold that are minimally taxed worldwide) or by the preferences that they have been granted.

LDC exports are highly concentrated in terms of products, and this export concentration has dramatic effects on the pattern of protection faced by LDCs (Figure 1). Looking at the revenue from tariffs levied on WTO LDC exports in OECD countries—except Mexico and New Zealand—only 3 percent of the products account for 96 percent of this revenue. This element has to be kept in mind when considering the proposals on the table today.

Another potential source of deterioration of terms of trade arises from LDCs' net trade balance in agriculture and agrofood products. These sectors may be subject to large augmentations in world prices due to the removal of distortions that today impede world demand and enhance world supply. The net agricultural trade balance of WTO LDCs reveals that among 28 countries for which statistics are available, 18 are net food-importing countries.[2] In terms of products, LDCs' trade deficit is particularly high for sectors—like milk and other dairy products, rice, wheat, and meat and meat products—that are currently subject to large distortions and are expected to undergo large variations in world prices.

[2] Net agricultural trade balances are based on average trade data between 2002 and 2004 extracted from the BACI database.

Figure 1—Distribution of tariff revenue collected on WTO LDC exports by destination market



Source: MAcMapHS6v2.1 and authors' calculations.

Note: Theoretical tariff revenue is computed as the product of actual trade multiplied by the applied preferential tariff. Thanks to the full implementation of the Everything But Arms European initiative by September 2009, LDC exports do not face residual protection, and, therefore, representing the EU market on this graph is not relevant.

CURRENT MODALITIES

After seven years of trade talks, market access modalities have reached a high level of sophistication. Even if the general philosophy is simple, with progressive tariff-cut formulas for both agricultural and nonagricultural goods, many flexibilities have been introduced with different degrees of special and differential treatment for different groups of developing countries.[3]

Based on these modalities, agricultural tariff cuts will be performed according to a tiered formula, with broader bands and lower cut rates for developing than developed countries. Very recently acceded members and LDCs are exempted from new tariff reductions, and small and vulnerable economies are not required to reduce their applied tariff rates. All WTO members will be eligible to shelter a number of tariff lines (about 5 percent) from the full formula impact in exchange for tariff rate quota (TRQ) creation and enlargement. For developing countries, special products will be completely excluded from trade liberalization. Following the initiative of Latin American countries, additional tariff reductions have been requested from developed countries on tropical and diversification products. Additional cuts are also being implemented for processed products displaying tariff escalation features. A Long Standing Preferences clause is still under negotiation, in order to delay expected preference erosions for LDCs.

[3] A full description of the modalities implemented in this study is provided in Laborde, Martin, and van der Mensbrugghe (2008). This scenario is based on the May 2008 Modalities (WTO documents TN/AG/W/4/Rev.2, TN/MA/W/103/Rev.1).

Table 1—Average protection faced by exporting zone (%)

Zones	Baseline	Central scenario	Cut rate (%)
High-income countries	**4.7**	**3.6**	**–23.6**
Asia	4.7	3.6	–23.3
Europe	4.8	3.7	–23.1
North America	4.3	3.2	–25.6
South America and Caribbean	3.7	3.2	–12.5
Developing countries (excluding LDCs)	**5.1**	**3.7**	**–26.4**
Africa	4.7	4.0	–15.1
Asia	5.1	3.6	–29.6
Europe	4.9	3.5	–27.0
North America	1.8	1.4	–21.1
South America and Caribbean	7.7	6.1	–21.1
Least-developed countries	**4.2**	**3.4**	**–19.7**
Africa	3.9	3.6	–8.2
Asia	4.6	3.0	–35.0
South America and Caribbean	3.6	1.9	–48.5
World	**4.8**	**3.6**	**–24.4**

Source: MAcMapHS6v2.1 and authors' calculations (reference group weighting scheme).

For nonagricultural products, a Swiss formula with a low coefficient, 8, has been implemented for developed countries, eliminating all existing tariff peaks. For developing countries, several options are offered combining different Swiss formula coefficients and flexibility coverage in terms of products with reduced or no liberalization. Once again, very recently acceded members, small and vulnerable economies, low binding coverage countries, and LDCs are not required to make new changes on their applied tariffs.

In the central scenario, we do not implement DFQF access for LDCs.

THE IMPACT OF THE CENTRAL SCENARIO

Due to initial preferences and, to some extent, product specialization, LDCs benefit least from current modalities as represented in our central scenario. Average protection faced by LDCs falls by 19.7 percent compared with 26.4 percent for other developing countries (Table 1), which is clearly a limited effect. More generally, unlike Northern markets, where preferences already exist, Southern markets do not open and therefore will be eroded. African LDCs benefit least from new market opportunities, with an average reduction of 8.2 percent (0.3 points) due to existing preferential market access. In contrast, the average protection affecting Asian LDC exports,

Table 2—Impact of the central scenario on bilateral exports (% of variations from the baseline in 2025)

Exporter \ Importer	Australia and New Zealand	Canada	European Union	Japan	South Korea	United States	Rest of OECD	High-income countries	Middle-income countries	Low-income countries
High-income countries	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**2.4**	**0.2**
Middle-income countries	**1.6**	**1.8**	**2.7**	**1.8**	**2.7**	**1.5**	**0.2**	**2.1**	**0.0**	**–1.5**
Bangladesh	7.6	–31.0	–9.8	–9.0	–0.6	12.4	–0.6	–5.4	7.8	0.0
Cambodia	4.6	–29.9	–8.6	–22.5	4.6	12.0	7.3	–3.4	5.9	0.0
Other Asian LDCs	0.7	–6.2	–7.7	–1.0	1.2	3.7	1.1	–2.7	1.3	0.0
Senegal	1.0	0.4	–2.7	–13.9	8.0	0.6	8.1	–4.0	3.8	0.0
Rest of West Africa	0.9	0.8	–2.8	0.2	1.7	–0.5	–3.4	–2.1	3.2	0.0
Central Africa	0.7	–0.2	–1.7	0.6	1.0	–0.5	–1.3	–1.0	1.5	0.0
South-central Africa	–0.1	–0.8	–2.4	–1.8	0.1	–0.9	–1.2	–1.2	0.7	0.0
Madagascar	3.8	–2.7	–3.5	0.9	2.9	–5.5	–0.7	–3.6	7.8	0.0
Malawi	1.4	–0.6	–6.3	–2.3	–0.2	40.0	–26.8	–1.2	2.4	0.0
Mozambique	0.7	–0.2	–1.6	–3.2	1.8	1.1	–3.7	–1.5	3.8	0.0
Tanzania	0.3	–1.4	–5.6	2.4	5.8	2.2	–8.1	–4.0	3.7	0.0
Uganda	1.3	0.5	–2.6	–7.5	1.3	0.4	–4.4	–2.3	2.8	0.0
Zambia	1.3	–0.5	–4.8	0.9	–0.6	0.8	–0.9	–2.2	0.9	0.0
Rest of East Africa	1.1	0.9	–3.2	–1.9	0.1	0.0	3.6	–1.9	1.8	0.0
Low-income countries	**1.4**	**–15.7**	**–4.7**	**–3.4**	**1.0**	**2.7**	**–0.7**	**–2.6**	**2.2**	**0.0**

Source: Authors' calculation using the MIRAGE model.

specialized in wearing apparel, is reduced by 35 percent (1.6 points) under the central scenario, representing one and a half times the world average.

Globally, LDC exports to HICs decline by 2.6 percent under this scenario, while MIC exports to HICs increase by 2.1 percent (Table 2). This, of course, reflects a substantial erosion of LDC preferences, in particular to Canada, the European Union, Japan, and some other OECD countries. For example, exports to Europe from Brazil, Australia and New Zealand, and South Korea are augmented, while exports to Europe from all LDCs decline in the range of 1.6 percent for Mozambique to 9.8 percent for Bangladesh.

LDC exports to MICs increase by 2.2 percent, but this is lower than the increase in HIC exports to MICs. Notably, however, HICs represent a more important export destination for LDCs than do MICs in terms of export value.

This negative evolution of LDC exports is particularly true for agricultural and agrofood products, in that the central scenario cuts these exports by 1.7 percent, reflecting a decrease ranging from 0.7 percent for Malawi to 6 percent for

Table 3—Average protection faced by WTO LDCs, DFQF scenarios

	Baseline	Central	F	FS	F100	FEL	FEL100
All WTO LDCs	4.2	3.4	3.2	3.3	2.7	2.9	1.9
Cut rate (%)		–19.7	–24.5	–20.3	–35.7	–31.0	–53.4
Africa	3.9	3.6	3.4	3.6	3.1	3.1	2.4
Cut rate (%)		–8.2	–13.9	–8.2	–20.4	–22.1	–40.3
Asia	4.6	3.0	2.8	2.9	2.0	2.6	1.3
Cut rate (%)		–35.0	–38.7	–36.4	–56.0	–42.8	–71.1
South America	3.6	1.9	1.8	1.9	0.9	1.7	0.7
Cut rate (%)		–48.5	–49.4	–48.5	–75.8	–52.3	–81.6

Source: MAcMapHS6v2.1 and authors' calculations (reference group weighting scheme).

Cambodia. Simultaneously, this scenario is positive for Australia and New Zealand (9.4 percent), Canada (6.6 percent), the European Union (13.4 percent), and Brazil (12.7 percent). As expected, the erosion of LDC preferences occurs in sectors like rice, sugar, and meat and meat products.

The central scenario also confers a negative effect on LDC industrial exports, though it is 50 percent smaller (–0.8 compared with –1.7 percent in agriculture). The scenario implies particularly negative effects for Bangladesh's industrial exports, which drop by 4.7 percent, and those of Madagascar, which drop by 3.6 percent.

This also reflects erosion of preferences because it mainly concerns the leather, textile, and apparel sectors where Most Favored Nation (MFN) duties are relatively high in HICs, implying that current preferences are valuable for these countries.

As a consequence, the central scenario has a negative impact on agricultural and agrofood production in all LDCs. The impact is mitigated in industry, except in Bangladesh and Cambodia, where industry is substantially hurt. This trade reform leads to real income losses for almost all LDCs. The loss is substantial for Cambodia and Madagascar and a little less substantial for Bangladesh and Malawi. This real income effect stems from a deterioration of terms of trade, which, as explained in the previous section, may have two, potentially cumulative, origins: erosion of preferences and rising agricultural world prices for net food-importing countries.

ALTERNATIVE SCENARIOS

From this core simulation, five additional scenarios focusing on the DFQF regime have been implemented.

- F scenario. The scenario supposes DFQF market access for LDCs in Brazil and OECD countries, excluding South Korea but including Mexico and Turkey. It authorizes a 3-percent exemption clause in terms of products. The list is defined by each OECD country vis-à-vis all LDCs. Finally, only WTO LDCs benefit from the DFQF market access. Note that this is, in fact, what has been defined in the modalities published in May 2008.
- FS scenario. The scenario mimics scenario F, but the 97 percent of DFQF is defined on a bilateral basis such that a specific list of excluded products is made by each preference-giving country for each LDC.
- F100 scenario. The scenario is similar to scenario F but includes a 100 rather than 97 percent DFQF (that is, it eliminates any excluded products).
- FEL scenario. The scenario implements a geographic extension of DFQF access for LDCs in India, China, and South Korea with an excluded products clause defined at 3 percent of tariff lines.
- FEL100 scenario. The scenario is similar to the FEL scenario but offers a 100 rather than a 97 percent DFQF.

First, the basic DFQF scenario (scenario F), has a limited impact on LDCs: the average tariff cut shifts from 19.7 percent without DFQF (under the central scenario) to 24.5 percent (Table 3). This gain benefits comparatively more African countries (market access opportunities rise by half) than Asian countries, where no real additional gains are recorded (the average tariff cut shifts from 35 to 37.7 percent). Allowing importers to define DFQF based on 97 percent of the products on a bilateral basis (the FS scenario) limits the ambition of the initiative (see Table 3, columns F and FS), in particular for African countries.

The 100 percent DFQF (scenario F100) with the same set of granting countries has a very powerful effect in that it nearly doubles market access opportunities. The average duty applied on Asian LDC exports is reduced by more than half, while the average rate levied on African LDCs falls by 20 percent. Once again, the U.S. apparel sector plays a crucial role for Bangladesh. Notably, scenario F100 benefits Asian LDCs significantly, as it would reduce the current preferential margins available to African countries in the United States under the African Growth Opportunity Act (AGOA), enabling Asian LDCs to compete.

Extending the DFQF 97-percent initiative to other developing countries (China, India, and South Korea) has a more limited impact, on average (faced tariffs drop from 3.4 percent under the central scenario to 2.7 percent under the F100 scenario and only 2.9 percent under the FEL scenario). African countries benefit the most; indeed, the FEL scenario is even better for them than the F100 scenario. Asian LDCs already benefited from some preferences in China and India and are heavily specialized in products where these two emerging countries have strong comparative advantages; hence, they do not gain new market access opportunities in this case. In contrast, due to different trade specializations, new preferences in these markets are quite attractive for African LDCs.

Finally, by combining both the geographic extension of preferences and the elimination of excluded products, the FEL100 scenario appears to be a win–win solution for African and Asian LDCs, cutting the average tariff barriers they currently face by more than half.

In terms of exports, the DFQF regime, agreed upon at the Hong Kong Ministerial conference, in fact has a minimal impact on LDC exports since the results are very close to those implied under the central scenario. The main positive changes reflect market access increases for agricultural exports from Africa to Brazil, Mexico, and Turkey, where initially there was no preferential market access. Under the DFQF regime without excluded products, agricultural and agrofood exports from LDCs increase by 22.5 percent as opposed to decreasing by 1.7 percent under the central scenario. Similarly, LDC production in these sectors increases by 3.9 percent instead of decreasing by 0.3 percent under the central scenario. Most of these increases reflect strong stimulation of a few agricultural products (rice, milk, and sugar) and the textile and apparel sectors. For example, apparel exports from Bangladesh, Cambodia, Madagascar, and Uganda to Mexico all increase by more than 400 percent.

In contrast, the geographic extension of this preference under the FEL scenario has a small but positive impact on global LDC exports and on real income, despite a substantial increase in exports of cereals and "other manufactured products" in several LDCs. The selection of excluded products on a bilateral basis greatly reduces the ambition of the initiative, particularly for African countries and for Bangladesh.

Conversely, a DFQF regime without OECD- or BrIC-country excluded products is significantly beneficial for LDCs, in terms of both exports and real income. This is particularly true for Cambodia, Senegal, Madagascar, Tanzania, and other Asian LDCs for which real income gain is substantial.

CONCLUSION

These results have shown that the potential benefits to be gained by LDCs from the trade reform designed by the modalities made public in May 2008 are negligible. First, LDCs are not committed to modifying their own trade policies and therefore will not grasp any benefits coming from domestic reforms. Second, LDCs could be hurt by the erosion of existing preferences. Third, most LDCs are net food-importing countries that will be negatively affected by the current trend of rising food prices, which is only expected to increase with the removal of agricultural distortions. Since LDCs are a heterogeneous set of countries on these two last issues, they may have different preferences concerning the design of multilateral trade liberalization and can even have conflicting interests. Therefore, it is important to offer an ambitious agreement of benefit to each of them.

As a result, it would seem appropriate for WTO negotiators to make a supplementary effort in favor of the poorest countries. The DFQF Initiative moves in the right direction, but it should be extended not only from a product perspective, with a 100- rather than a 97-percent application, but also in terms of geographic coverage. The initiative must be supported by both OECD and BrIC countries. In the short run, this dual approach is the only way to enhance market access for LDCs and to counterbalance the strong preference erosion they will face in their traditional export markets. Of note, it is in the interest of Asian LDCs to prioritize full openness of OECD markets (a 100-percent DFQF regime), particularly full access to the U.S. market, while African countries will draw more benefits from a geographic extension of this regime to BrIC countries.

Finally, LDCs are hurt not only by a lack of market access but also by rules of origin and technical, sanitary, and phytosanitary regulations. They also have a trade-related

infrastructure problem that can be addressed by the Aid for Trade initiative. This is the price to be paid for a successful development agenda under the aegis of WTO.

FOR FURTHER READING

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